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February 1986

TAIG

TWIN CITIES ATARI INTEREST GROUP

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Article submission

Articles should be submitted in standard text files (Atari Writer, Hometext, Speedscript) or in Letter Perfect format. If you don't own a wordprocessor, you can enter an article into BASIC using REM statments. Or, send legibly written or typed text (make any schematics legible also, we can't reprint what we can't read) to

Cory Johnson 1835 Shadyview Circle, Plymouth, MN. 55447 Dave Stengel 3230 Shadyview Lane, Plymouth, MN. 55447

Articles may also be dropped off at

Wizard's Work 18th and 36th, New Hope, MN.

If you wish, you can also upload your article to the BBS. Leave a message to the sysop stating that the upload was an article. The BBS number is 473-2897

DEADLINE

Deadline for submission is the 10th of the month. Any articles recieved after the 10th will be held until the next newsletter. Classified ads.

Taig members may also submit FREE classified ads 2 lines in length. Ads are submitted in the same manner as articles.

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To renew your membership, send a check for \$15.00 made out to TAIG, and on a sepearte piece of paper, your name, and address to Marshall Keith 413 Connelly Lane, Burnsville, MN. 55337.

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Notes from the Pres.

Regent Spell - A Review by Dick Johnson

Remember Electronic Arts comment about Atari owners don't own disk drives? Well the've changed there tune. Antic magazine started a letter writing campaign 9 months ago which has finally bore fruit. Electronic Arts has promised to release Adventure Construction Set, Heart of Africa, Mail Order Monsters, Marble Madness, Racing Destruction Set, Skyfox, Software Golden Oldies, and Ultima IV (already out) for the 8 bit line. But still no software for the ST. But I'm not worried, because when the Amiga fails the'll be glad to rewrite their software then.

Been having problems getting your orphaned disk drives repaired lately? Well help is on the way. Percom has awarded a nationwide contract for repairing disk drives to STS Computers, 1073 W. Broad St., Falls Church, VA 22046. (703) 237-0558. Trak disk drives can be sent to Intergrated Computer Resources, Inc., 247 N. Neltor Blvd., Suite 61F, West Chicago, Illinois 60185. (312) 231-6104.

Speaking of disk drives Supra will soon have their 10 MB (Megabyte) drive ready soon and their already rumors of a 20 MB drive in the works. These drives will be available for the for the XL & XE computers. Wouldn't it be nice to have one on the BBS? Haven't hear any more about the 3.5 inch disk drive for the 8 bit machine but I understand it was demoed during the CES show. HABA's 10 MB drive for the ST appears to be having problems, they claim because of a new version of the DMA chip which was changed.

The TOS ROMS should soon be available. User Friendly has received a few and have installed one in their store unit. Delivery of the chips has been a little slow and the first sets will be sold (\$25 - installation may be extra) to people who bought there machines from them. You will be notified when your chips are available. Please contact your supplier if you have any questions. The only problem which has developed is that some software will not work with the new TOS. However you can still get around this by loading the old TOS in first. So far ST-Talk and H&D Forth are the only ones to have problems but I'm sure that upgrades will be available to users.

New products for the 8 bit: Winter Games, Rogue, Gonnies, Zorro, Alternate Reality, Atariwriter Plus, Music Painter, Battle of Antietam and the Leaning Phone. For the ST: Zoomracks, Temple of Apshai Trilogy, OSS Pascal, Modula-2 (a new language), H&D Base (a D Base II lookalike), Antic's Disk Doctor, Antic's 6800 Assembler, Pylon's Fast Basic, Electric Arts Financial Cook Book, Michtron's BBS, Battle of Antietam and Easy Draw. New Books include Compute's ST Programmer's Guide, Abacus ST Internals and GEN on the Atari ST.

Well that about does it till next month see you at the meeting.

Dick Johnson

Regent Spell is a spelling checker for the 520ST which will check any document generated by any wordprocessor currently available for the 520ST. Although the packaging and instruction are not as polished as some packages it is still a very good program.

After booting up the program you are asked to insert your text disk and hit RETURN. You will then be presented with a directory of the disk, you can then use your mouse to select the document to be spell checked. After selecting your document the screen starts checking your document stopping at the first word not found in your dictionary of over 30,000 words.

Five Windows are used, the 1st to show the word in question within its context, with the word highlighted. The word in question is also shown in the 2nd window in which the spelling may be changed by backspacing and typing it over or by choosing a word from your dictionary to replace it. The 3rd window displays the dictionary with ten words words showing, 5 above and 5 below the closest spelling to the word in question. This is often very close but sometimes the 2nd character may be the one in error. To view different parts of the dictionary you can go up and down the dictionary five words at a time by using the up and down arrows on the dictionary window with your mouse or by retying the word in the 2nd Window which automatically repositions the dictionary as the spelling changes. The 4th window has is marked INSERT and the 5th is marked DELETE these are used to add or delete the word in the 2nd window to the dictionary.

To correct the spelling all you have to do is touch the word from the dictionary window with your mouse and it replaces it in the 2nd window. To accept the word in your document just touch it your mouse and it replaces it and goes on the the next word. What to add it to your dictionary just another touch. Don't like the mouse? Well single keystrokes from the keyboard will do the same functions, although I like the mouse best.

On the outside of the box is the claim "Simply, The Best!". I have to agree as of today and probably for while to come, but there could be improvements. Like a feature to correct the same misspelling throughout the document when you know you did it that way again and again, or a little smarter selection of possible spelling corrections. Also there is no way to exit the program before you've checked for all the errors unless you reset the computer. The drawback to this is the new words you have added to the dictionary are only rewritten to the disk when you exit the program. And how long will it be before we have one which will check our spelling as we type. But for my money I'm glad there is an alternative to Hippo-Spell.

One final word of warning however. Regent Spell is copyprotected and unlike most copyprotected software which will not allow you to make a copy and then ask for the key-disk before running, Regent Spell just hangs up. So you are forced into using your one and only copy of the program.

Editor's note:

This article was submitted in time to be printed in the last newsletter. Unfortunately, the rather sudden and unexpected problems with the BBS did not allow us to retrieve it before we had to go to the printer. I'd like to thank Mr. Welch for his patients, and helpfulness.

DRAWING ELLIPSES AND CIRCLES

by Lance Welch

Here is a Basic program for drawing ellipses and circles that you can put in your toolkit. The program is fast and draws ellipses accurately.

The program is fast because, in the loops, only integer addition and subtraction are used. Of course, Atari Basic only uses floating point, but the program is easily adapted to other languages, such as assembler or ACTION!, where integers are used.

The program is accurate because it was designed to have minimal error. It is called the midpoint algorithm by the person who designed it. I translated his Pascal algorithm into Basic XL (There is also an Atari Basic version included). For those of you who are interested, read the IEEE Computer Graphics and Applications Journal of September 1984. The title of the article is "An Efficient Ellipse Drawing Algorithm" written by Jerry R. Van Aken. The ellipse is drawn accurately at any graphics resolution.

The program draws the ellipse centered on the major and minor axes, aligned to the X and Y axes. The basic equation for the ellipse

$$f(x,y) = b^2x^2 + a^2y^2 - a^2b^2$$

is used as the basis for the program. The variables, a & b, are length of the major and minor axes of the ellipse. If a & b are equal, then the result is a circle. The program only calculates the x & y points for the first quadrant. Then it uses symmetry to draw the other three quadrants of the ellipse. By symmetry I mean that an x,y point has the same absolute value on 4 points of the ellipse. To get the opposite side, for example, you only have to take the negative of x,y (-x,-y).

The program is comprised of two loops. The first loop calculates points for region 1. Region 1 starts at the X axis and continues up until the tangent to the ellipse is -1. The second loop calculates points for region 2. This region continues from the tangent of -1 to the intersection of the ellipse with the Y axis.

Now for the boring details of the program.

The program setup occurs from lines 10 through 90. Line 20 sets the variables A and B. You may wish to get input from the keyboard instead of setting them this way. If the values are to reflect real world measurements, you will have to scale them to the screen coordinates. Line 30 and 40 set up the color and graphics mode. Lines 50 through 90 set up the variables for the loops.

The first loop, which plots region 1, occurs from lines 100 through 190. The lines 120 - 140 plot the symmetric points of the other 3 quadrants of the ellipse. Note also

the addition of 80 to X and 40 to Y in each PLOT statement (in loop 2 also). This centers the ellipse on the screen. If you use a different graphics mode or wish to put the ellipse in a different part of the screen, be sure to change these numbers to the right values.

The second loop occurs from line 200 to the end. This loop prints the upper part of the ellipse.

10 Rem Basic XL ELLIPSE DRAWING ROUTINE

20 A=35:B=15

30 Color 1

40 Graphics 7

50 X=Int(A-.5):Y=0

60 T1=A*A:T2=2*T1:T3=2*T2

70 T4=B*B:T5=2*T4:T6=2*T5

80 T7=A*T5:T8=2*T7:T9=0

90 D1=T2-T7+T4/2:D2=T1/2-T8+T5

100 While D2<0

110 Plot X+80,Y+40

120 Plot -X+80,Y+40

130 Plot -X+80,-Y+40

140 Plot X+80,-Y+40

150 Y=Y+1

160 T9=T9+T3

170 If D1<0:

D1=D1+T9+T2:D2=D2+T9

180 Else :

X=X-1: T8=T8-T6:

D1=D1-T8+T9+T2:

D2=D2-T8+T5+T9:

Endif

190 Endwhile

200 Plot X+80,Y+40

210 Plot -X+80,Y+40

220 Plot -X+80,-Y+40

230 Plot X+80,-Y+40

240 X=X-1

250 T8=T8-T6

260 If D2<0:

Y=Y+1:T9=T9+T3:D2=D2-T8+T5+T9

270 Else :D2=D2-T8+T5:Endif

280 If X>=0 Then Goto 200

The second version of the program is written in standard Atari Basic. The only differences are due to the use of the WHILE, ENDWHILE and IF, ELSE, ENDIF statements in Basic XL which have to be translated into the appropriate IF, THEN and GOTO statements.

10 REM Atari Basic ELLIPSE DRAWING ROUTINE

20 A=34:B=15

30 COLOR 1

40 GRAPHICS 7

50 X=INT(A-0.5):Y=0

60 T1=A*A:T2=2*T1:T3=2*T2

70 T4=B*B:T5=2*T4:T6=2*T5

80 T7=A*T5:T8=2*T7:T9=0

90 D1=T2-T7+T4/2:D2=T1/2-T8+T5


```

100 IF D2>=0 THEN GOTO 200
110 PLOT X+80,Y+40
120 PLOT -X+80,Y+40
130 PLOT -X+80,-Y+40
140 PLOT X+80,-Y+40
150 Y=Y+1
160 T9=T9+T3
170 IF D1<0 THEN D1=D1+T9+T2:D2=D2+T9:GOTO 100
180 X=X-1:T8=T8-T6:D1=D1-T8+T9+T2:D2=D2-T8+T5+T9
190 GOTO 100
200 PLOT X+80,Y+40
210 PLOT -X+80,Y+40
220 PLOT -X+80,-Y+40
230 PLOT X+80,-Y+40
240 X=X-1
250 T8=T8-T6
260 IF D2<0 THEN Y=Y+1:T9=T9+T3:D2=D2-T8+T5+T9:GOTO 280
270 D2=D2-T8+T5
280 IF X>=0 THEN GOTO 200

```

The Basic XL cartridge from OSS is noticeably faster and if this routine were inside a larger program, the difference would be magnified because Basic XL does not have to search through statement numbers like Atari Basic does. Basic XL merely indexes to the right statement.



**THIS COMPUTER PROGRAMMER
HAS JUST FOUND OUT HE
HAS A TERMINAL ILLNESS...**

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LESSON SEVEN: INTERRUPTS

We now approach one of the most difficult topics in the world of assembly: interrupts. This is such a messy topic that very few high-level languages make any provision for interrupts. Moreover, interrupts are one of the best ways around crash your program hard. Programmers using interrupts must be very careful.

The standard way to handle this problem is with a technique called polling. Your program runs out every now and then to check whether the high-priority situation has arisen. If it has, then the program responds to it. If not, it returns to its original work.

The problem with polling arises from the choice of polling interval. If you choose a long (infrequent) polling interval, then you may not respond to a demand quickly enough. If you choose a short (frequent) polling interval, then you will respond quickly to the demand, but you will never have any time for your regular computations.

You may think this type of situation is infrequent, but I can list quite a few situations where this is fairly common. Most I/O operations involve short bursts of computation at infrequent intervals, but they must be attended to on a tight schedule. For example, talking to a cassette deck involves very little real work from the CPU, but it must be done according to a precise schedule.

Even a disk drive is very slow by the standards of a 6502. Or how about keyboard response? When the human operator presses a button, he wants to see response NOW, not two or three seconds from now. Yet he could press that button at any time. So should your program sit on its hands waiting for a keypress, or should it ignore the human operator?

The solution to all of these problems is the interrupt. An interrupt is rather like a subroutine that can be called by a hardware action. There's a wire going into the 6502 called IRQ (Interrupt Request). That wire is normally quiet. But when something important happens, like a keypress, the computer's hardware puts a signal on that wire to interrupt the 6502. Here's what happens next:

The 6502 is busy running a program, but when it gets the interrupt signal it first checks the I-bit (Interrupt) in the processor status register. If the I-bit is set, it decides to ignore the interrupt, but if it is clear, it proceeds to the next step. It saves the processor status register and the current value of the program counter onto the stack.

Then it loads the program counter with the address stored at a special place in ROM -- it's either \$FFFC or \$FFFE, I can never get it straight. It thus jumps to the address specified in ROM. It expects to find an interrupt service routine there, which presumably will deal with the keypress in the appropriate manner.

This routine will probably start by pushing A, X, and Y into the stack to preserve them. When done, the routine will then pull them off the stack and execute an RTI instruction, which causes the 6502 to pull the processor status register off the stack, and then pull the program counter off and resume operating.

The important thing about this rather complex sequence is that it allows the 6502 to drop whatever it is doing, service the interrupt, and then return to its earlier functioning without skipping a beat. The overriding goal of all this is to be absolutely certain that, when the 6502 reenters from the interrupt, it returns in EXACTLY the same state that it was in when the interrupt hit. Otherwise, all sorts of horrible, untraceable bugs would result.

Imagine -- you're in the middle of some huge computation when an interrupt strikes. It subtly changes some very tiny parameter, just enough to insure that when the computation resumes, it will be slightly incorrect. When you try to find the bug, you discover that sometimes the code works perfectly and sometimes it fouls up, and you can't figure out why it should do that. Very bad business!

Moral: interrupts must follow a very tight discipline if they are to be of any utility.

Now let's get into some of the technical gore involving interrupts. First, there are two interrupts on the 6502. They are called IRQ (Interrupt Request) and NMI (Non-Maskable Interrupt). The idea is that the IRQ can be masked out by setting the I-bit with the SEI instruction. Then you use the CLI instruction to clear the I-bit. Thus, IRQ is used for interrupts that have second priority.

NMI is reserved for first-priority interrupts, it is not maskable. However, the designers of the Atari computers routed IRQ and NMI through the POKEY and ANTIC chips respectively. And they put mask registers into these chips. Thus, the NMI can be masked out after all -- but only on Atari computers. Other 6502-based computers don't allow that.

The NMI and IRQ interrupts have separate interrupt vectors in ROM, so they can be treated differently. These vectors route the interrupts to the OS, but the OS is smart enough to route interrupt flow through some RAM locations. This means that you can intercept these two interrupts by altering the contents of the RAM-vectors. (I won't list them here, there are a number of them for different situations.)

You must be careful, though, when altering such a RAM vector. What happens if an interrupt strikes after you have changed one byte of the address and before you have changed the other byte? The 6502 will fly off into never-never land and you have crashed. Sure, it's unlikely, but good programmers don't count on luck to make their programs work. You have to guarantee that the interrupt won't occur before you mess with the vector. Use SETVBV from the OS.

The two primary applications of interrupts with the Atari computers are for VBIs (Vertical Blank Interrupts) and DLIs (Display List Interrupts). These are very involved topics covered quite thoroughly in the book De Re Atari. VBIs are most often used for animation control, input handling, and other time-critical operations. For example, the entire

player I/O of my game Eastern Front (1941) is handled by VBIs. The scrolling, giving of orders, identifying units, and so forth is all done by VBIs. The mainline routine meanwhile figures the artificial intelligence.

DLIs are used to enhance the graphics on the screen. You can get more colors, more use out of players, more scrolling, and more character sets with proper use of DLIs. Again, consult De Re Atari for a full treatment of this complex subject.

Interrupts are extremely difficult to debug because they tend to crash the system when they fail. You must exercise the strictest discipline in writing interrupt code. Timing problems, seldom of concern in mainline programming, can become critical with interrupts.

What happens, for example, if your interrupt service routine takes so much execution time that more interrupts arrive than you can service? Bad things, I assure you. You must always ask yourself, what happens if an interrupt strikes here? Or there? You must assume that an interrupt will strike at the worst possible time, and write your code to deal with that possibility.

The most important discipline to follow in writing interrupt service routines is this: keep your interrupt database separate from your mainline database. If the ISR can freely write to variables used by the mainline, you will certainly have problems when the mainline attempts to work with variables whose values change in unpredictable ways. You must set up ironclad rules about when the ISR can mess with variables used by the mainline, what it can do to them, and how it notifies the mainline routines that it has indeed altered them.

Approach interrupts with extreme caution. They are very powerful, but every programmer can tell you horror stories about debugging interrupt routines.

MAST-SIG-NEWS

There will be a MAST SIG meeting the 21st of Feb. MAST is the "Minn. Atari ST" SIG (Special Interest Group) of SPACE. The meeting is EVERY 3rd Fri. of the month, at 7:30 PM at our regular meeting place, Falcon Heights Community Center 2077 W. Larpentur.

The only requirement to become a member of MAST is to join SPACE. MAST news will be covered in the regular SPACE Newsletter, this way there is one printing, one postage to pay, and everyone will get the latest ST NEWS delivered to their home. New information on the ST will still be covered at the regular SPACE meeting, but will be expanded and pulled apart at the MAST meeting the next Fri., one week later.

The extra cost of the meeting hall will be taken care of by the selling of 3 1/2" D.O.M.'s for the ST. The extra cost of the Newsletter will be covered by NEW ST OWNERS joining SPACE, and more ads in our newsletter. Remember the ads, support our local computer dealers.

By having one main computer club with a SIG on the NEW 520ST, everyone will be kept up-to-date on both the old and new ATARI, in the NEWSLETTER, and each meeting can cover their own unique problems. REMEMBER SAME PLACE, SAME TIME, ONE WEEK LATER FOR 520ST MAST MEETING.

BY FRANK A. MARKOWSKI

I purchased a Atari 800XL in Dec.84, for my daughter to use I wanted her to be computer literate. She had been using them at school for sometime and I thought it would be a good idea to have one at home. I did not want to spend a fortune on it because it would possibly end up in a closet like other toys have.

First I bought a Commodore 64, I did not know much about computers but this one was to slow so I returned it. I then bought the Atari with a color monitor two disk drives 1030 modem printer and about \$2000 worth of software through the year. WE had had a 2600 game machine from Atari, we all enjoyed that but games get old real fast.

I sell Real Estate and in 1977 we had the first computer at our office in Mpls. the first computer in the city I might add. I became to get more involved with our pc I then bought a 130xe about 8 months ago and many business programs and wordprocessor programs, + Synfile. Syncalc, Synstock, and numerous other programs I wanted to use in my business.

I had a direct mail company doing several hundred direct mail pieces every month and I had some questions about their quality and rate of return. They were also costing me several hundred dollars per month. I wanted a program I could use myself so I could maintain some control over what was mailed out. After many months of looking and a lot of questions and mistakes I finally got what I wanted, I use Paperclip with synfile to store the names and I do a mail merge (each letter is individually named and addressed to the prospective recipients) this makes a favorable impression on the party that receives it, makes the letter much more personal.

I recently attended a class with 300 Agents. The speaker was telling us about how use full a computer could be to help us in Real Estate sales. He had invested around \$5000 for a computer and disk drive etc. I do not recall if that price included a monitor or not, he had several thousand dollars invested in his system. The cost turn off most real estate agents. Most people laugh when I tell them I am using a Atari to handle direct mail, word processing, record keeping etc.

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Meetings

TAIG Sunday, Feb. 23, 7:30 p.m.
St. Louis Park Rec. Center
5005 West 36th Street.
St. Louis Park, MN.

NAGE Wed., March 19, 6:30 p.m.
User Friendly Computer
8465 Plaza Blvd.
Spring Lake Park, MN.

STAG (ST group) Sunday, Feb. 23
6:30 p.m.
St. Louis Park Rec. Center
5005 West 36th Street.
St. Louis Park, MN.

MAST (ST group) Friday, Feb. 21
7:30 p.m.
Falcon Heights Community Center
2077 West Larpentour.
Falcon Heights, MN.

They stop laughing when they find out what it cost me and what it can do. Some programs for other computers cost \$500-\$600 each. I have had other agents set up an atari system like I use, they have been well pleased and have had know problems. I have sent out thousands of letters and have had not one serious problem.

Its a joke to pay a fortune to do what can be done with a modest investment. I have no complaints about my computer and wish the Atari Corp. the best of luck. One thing I would like to see would be Synfile with some macros it would simplify entering the same city each time.

I still beleive in the coming years a computer will be in every house the way a phone is today. I am very impressed with Atari and what they are doing. Several large computer companys are pushing their wares at different Real Estate functions the price they ask for hardware is quite large, this will discourage most agents from using a PC. To bad, I have earned several thousand dollars with my PC in various ways, and will expand my list of uses in the future.

At the Last Meeting...
(Secretary Notes)

Most of this article consists of news and rumors mentioned at the last meeting by Dick Johnson. As to which are news and which are rumors, is not to my knowledge, but anyway here they are.

Fresh from Atari comes the three and one-half inch drives with 325k (I have a distinct feeling this is still a rumor). And along the subject of disk drives, there was also mention of a twenty megabyte hard drive to be released. More news on hardware includes ICD's release of a new 850 look-a-like with RS232 and printer ports, and a light pen that draws in three dimensions.

There is another public domain demo on the BBS for the 8-bit called Fugi-boink. Instead of a bouncing ball, it has a bouncing Atari symbol, and it's free for the taking. Of course there is still commercial software being made for the 8-bit computers, such as "Star Raiders II", and a new strategy game called "Conflict In Viet Nam." And if you haven't heard yet, "Ultima IV: Quest for the Avatar" is now available.

As for software for the ST, it shouldn't be too much longer before we see "Star Raiders" on the shelf, and "Silent Service" is due out in March. For all you Pascal programmers out there, there is now "Personal Pascal" by OSS. This is supposedly one of the best Pascals ever released, unfortunately I have neither the money to buy it or the time to use it. Other ST news includes the new 1040 ST (another RUMOR folks). This dandy little machine is just like the 520 except for a few minor changes like 1 megabyte of memory, an improved sound chip, and a double density disk drive built-in (didn't Atari plan a 1040 XL much similar to this a few years ago?). This package is rumored to go for about 1000 dollars. All of you 520 owners out there who feel they need one megabyte memory, well it is available but you'll void your warranty by having it installed. Fortunately Atari plans to offer a one megabyte upgrade that will NOT void your warranty, so it may be worth waiting before you upgrade...it may also be worth waiting for the 1040 ST! There are also a few ST books out there now, one of which mentioned was the "ST Programmers Guide" that goes for about seventeen dollars. Check your local bookstore. And speaking of local bookstores, B. Dalton has a software store now called, of course, "B. Dalton software." While this may not be news to you the fact that they now support the ST software-wise may be. Yes, the store out in Ridgeway mall (across from Ridgedale shopping center) has a shelf below the all the Amiga software that has a few ST software titles. The person working there told me that new titles will be put out the minute they are received. Now that they have supported the ST users, I suggest the ST users (including myself) support them by buying from them, otherwise that one single self could disappear, or possibly expand into two or three shelves depending, basically, on us. One last note on the ST. SPACE has their own ST group now called MAST (Minnesota Atari ST). It's held in the same

meeting room as SPACE, but at different times. You must be a SPACE member to attend. For more information call Bruce Haug (774-6226).

There were a couple of reports from Phyllis, our treasurer. There is 152 dollars in TAIG's account. This is not good. She reported that most of the money from our funds goes to printing the newsletter (gasp...Cory and I may be out of a job soon). So anyone willing to make donations to TAIG...

Phyllis and Gordy were fortunate enough to go to the Comdex show and come back to tell us about it. To be brief, Jack-baby was at the booth (which was huge by the way) greeting people, etc. The Atari booth had smaller booths inside it with representatives from other companies who plan to support the Atari computers. Most everything in the booth was geared toward to ST, though there were some new printers planned for the 8-bits. Atari stated that they do not plan to give up on the 8-bit line, in fact they made a separate division specially for it.

This concludes my submission, I'll see you Sunday (hopefully).

Notes from the Sysop

The system is back up. The problem with drive 1 turned out to be only a heat problem. It's been running for 3 weeks now, without any errors.

The question has been raised, "Why, if only drive 1 didn't work, was the board down for so long?" The answer lies in what drive 1 is, and does. Online we have 3 drives, 2 Percom double density drives, and 1 810 single density drive. The drive we were having problems with was the master Percom. Without this drive, the slave Percom will not work. So, when drive 1 is down, the only working drive is drive 3, the 810. We didn't go up on drive 3 mainly because the Forem we are using is only backed up in double density, also, the 810 only allows us 707 sectors to work with, whereas when everything is working, we have 3535 sectors to work with. Quite a bit of difference there. So, even if we had ported Forem back into single density, there would have been room a message base and no downloads. In view of this, I decided it was best to wait until drive one was fixed.

DESPERATLY NEEDED

We are looking for ST downloads, only 1 person has tried uploading ST software as far as I know, and it didn't seem to work. But, not having an ST, I really couldn't test it. We do want to offer an ST files section, so, upload your public domain programs. If you upload anything to the BBS, please leave a message explaining what the upload is, what machine it runs on, and in what language.

Articles

Articles for both TAIG and SPACE newsletters can be uploaded to the BBS. Please name the article NEWS* the * being a short (4 letter) description or number. Articles uploaded to the BBS will be used in clubs newsletter editors.

TAIG/SPACE BBS 300/1200 bps. 24 hours. (612) 473-2897.

The Winter Consumer Electronics Show

Report by Lee Whiteside

Once a year, Las Vegas hosts the semi-annual Consumer Electronics Show (CES). This years Winter show was held from Jan 9-12, just a few hours drive from Phoenix. The show encompasses everything from audio, video, telephones, and computers. Compared to the last couple of years, the home computer has taken a distant back seat to home video and compact disks. However, there was plenty to see for Atari computers if you looked hard enough.

Atari Corp. was the only computer company with a booth on the show floor. Commodore was nowhere to be seen other than in a hospitality suite in one of the hotels. There were quite a few software companies, but most of them were pretty low-key compared to previous years.

At the Atari booth, the entire "family of Atari products" were on display. A smaller 2600 game machine and the 7800 game machine were on display. Atari reportedly sold over a million 2600 game machines in the last year, so they are keeping that market going now that there is little or no competition.

For the 8-bit computers, Atari was displaying both the 65XE and the 130XE along with some of the recent peripherals like the XM301 modem and XM401 printer. They announced a "starter package" with the 130XE, 1050 disk drive, 1027 printer with Atariwriter, Silent Butler, Paint, Music Painter, and Star Raiders for \$399. None of the rumoured hardware such as a 3.5" disk drive or 80 column card were on display, however it was hinted that these would be announced in March at the Hanover Computer Fair in West Germany.

Also on display were several 520STs, one of them in a side by side comparison with the Amiga and Macintosh. Another was used for rotating demonstrations from third party software companies. Atari was not showing the 1040ST in their booth, but they did make an official announcement of its release. It will have one megabyte of memory, a built-in double-sided, double-density disk drive. It will list at \$999 with a monochrome monitor and \$1199 with a color monitor. The 1040ST will be sold only through "authorized" computer stores, with the 520ST making its way into mass market stores with a TV hookup capability for about \$100 less than it has been selling for.

Most of the new software at the show was for the ST computers, but the companies supporting the 8-bit line appear to be committed to providing quality software for those not ready to upgrade to a newer computer. Among the games on display were Star Raiders II from Atari, Jet from Sublogic, Conflict in Vietnam from Microprose, and Boonies,

Zorro, and Alternate Reality from Datasoft.

Batteries Included was showing several new packages for the ST computers, including D.E.S.A.S. and PaperClip Elite. Several other business productivity programs will be out in 1986 also. Michael Reichmann, BI President, told me that they would have several products coming out in the next year that they can't even talk about yet. BI is very excited about the ST computers and plan on being the "Premiere" software company for the ST.

Other companies showing ST software were Spinnaker Software Corp. with their Telarium adventures and Windham Classics. Activision was showing their ST support at a Desert Inn hotel suite, although on the show floor, they were only showing some software for the Amiga and C-64 to an occasional passer-by. According to ANTIC, Activision is planning to support the ST with specially designed programs by the end of the year.

Activision was showing The Music Studio for use with MIDI compatible synthesizers. Several of the companies displaying MIDI software at the Casio booth, indicated they would have ST software available soon.

One of the surprises at the show (even for the company displaying it) was a circuit board designing program on display at the Abacus Software booth. Just before the show, they had recieved a demo version from their software developers in West Germany and decided to use it to show off the ST. They were pleasantly surprised to find a lot of people were interested in the program and ran out to Alphagraphics to make some brochures showing what the program can produce. The fact that it was in German, including GEM, didn't keep them from taking several dozen orders before the show was over. It is being designed by a German expert in circuit board design and can do on the ST what costs several thousand dollars on IBM PCs or computer mainframes.

Overall, even with computers not a very big part of the show, Atari appeared to have a very successful show. Their booth was always crowded and the STs scattered around the show were getting a lot of attention also. The fact that Atari was pushing products that were already on the market, made the show a little less exciting than last year, when they showed a lot of products that were never marketed or just now became available. I think that shows that Atari is committed to getting the products out that they know they can produce and not just announcing something to see if there is enough interest to go ahead and make it. I'm sure Atari showed a lot of doubters that they had rebounded and are ready to take over the home computer market and maybe move up to take on Big Blue.



"Dad, when you get done working with Space Invaders, can I play VisiCalc?"

Thanks to GTIA

Disk of the Month (and what's on it)

Well, this month's disk is pretty good, not great, but I'll go into to that later. Meanwhile, here's what's on it:

CENTURION: this is a game much like Atari's own "Cavern Of Mars" only it's written in BASIC.

CHOPPER: this is a binary file which puts you in command of a helicopter that somehow entered an asteroid belt(?) Weird.

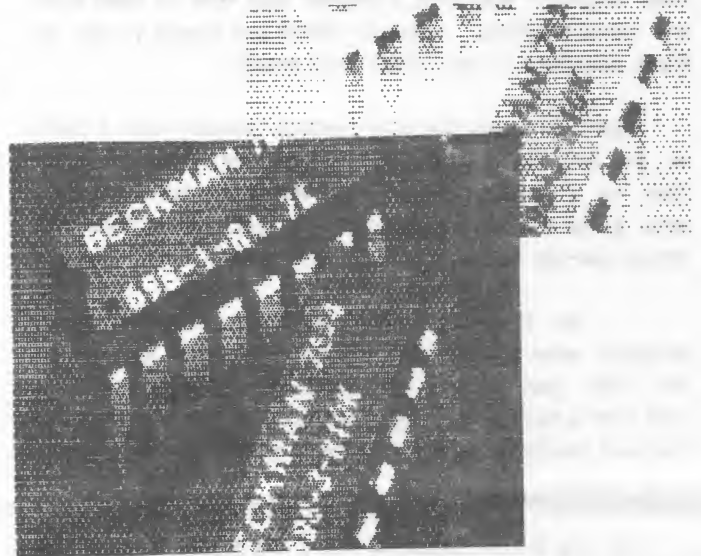
CYCLE: this program generates a Maze (in 3-D) and sends you through it on a motorcycle. Written in BASIC and easy to modify.

EDFONT (Create-a-Font): this is a program that allows you to customize your own fonts. This program ALONE is worth the money for the disk.

DOSWIZ.DOC: this is documentation.

The rest of the disk contains four pictures which are difficult to load. The only way we (the editors) saw them was to load them into "MegaFont II+."

About it being pretty good and not great, well we became quite frustrated when we could load those picture files into Micro-Illustrator, but I am happy to say this is the ONLY complaint.



STAG MEETING NOTICE

The STAG ST Group will be meeting at the St. Louis Park Recreation Center at 6 PM on Feb 23th. That's 1 hr before the TAIG meeting. We hope this will become a regular part of the TAIG meetings.

Notice from Membership
Marshall P. Keith

Our Users Group cannot survive unless Members pay their dues. I just took over membership a few months ago and it took me a while to get use to the system so part of the delay is my fault. There are 53 people that owe dues as of December or before.

Please look at the label on your newsletter, if the first two numbers are 85 you owed dues on December 31 or before and owe dues now. If you can't make it to the next meeting mail your dues to:

TAIG c/o Marshall P. Keith
413 Connelly Ln.
Burnsville MN 55337

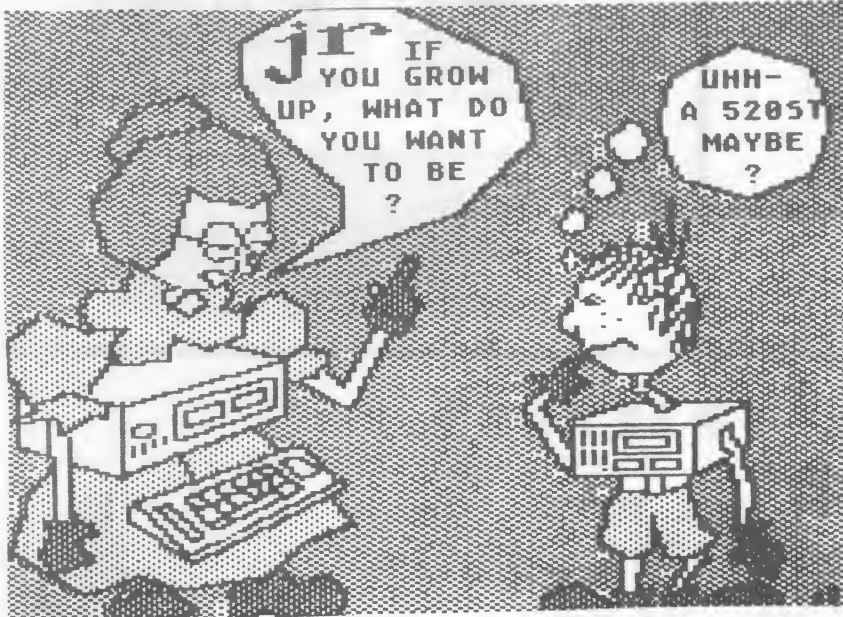
The dues are \$15.00 a year.

I hate to be mean but on march 15 I will be deleting anyone who owed dues before December.

Jokes Borrowed from JACB



TERMINAL TEE-HEELS

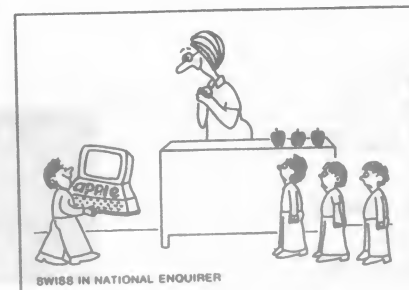
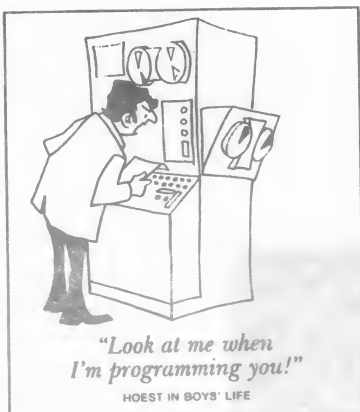


DAL-ACE

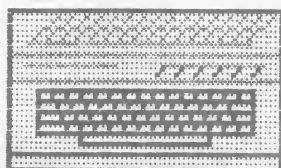
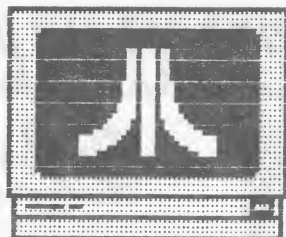
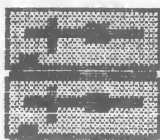


"HI, HILDA -- I'M HOME! BRING MY DINNER TO ME AT THE COMPUTER!"

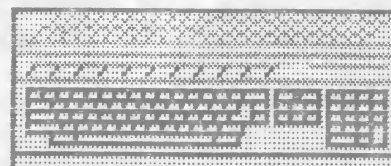
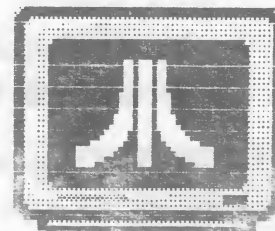
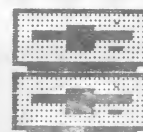
The I/O Connector
San Diego



130 XE



520 ST



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Next TAIG Meeting:
Sunday, Feb 23, 1986
STAG Group 6:00 PM
TAIG 7:00 PM
at
St. Louis Park Rec. Center
5005 West 36th Street
St. Louis Park, MN.

Next Nags Meeting:
Wed, March 12, 1986
NAGS 6:30 PM
at
User Friendly Computers
8465 Plaza Blvd.
Spring Lake Park, MN